ACCESSION NR: AP4028464

It is concluded that it is impossible to compute an exclusive model of ice in which there is an exchange of protons by random tunnelling. Orig. art. has: 6 equations.

ASSOCIATION: Institut khimicheskoy fiziki AN SSSR, Moscow (Institute of Physical Chemistry AN SSSR)

SUBMITTED: 25Nov63 DATE ACQ: 27Apr64 ENCL: 00

SUB CODE: PH NO REF SOV: 004 OTHER: 005

Card 2/2

KORST, N.N.; NIKITIN, Ye.Ye.

Relaxation in a double potential well. Teoret. i eksper. khim. 1 no.1:11-21 Ja-F '65. (MIRA 18:7)

1. Institut khimicheskoy fiziki AN SSSR, Moskva.

KORST, N.N.; NIKICH-KRILICHEVSKIY, O.A.

Relaxation equations for the magnetic moment of a bound spin system. Teoret. i eksper. khim. 1 no.4:505-510 '65.
(MIRA 18:10)

1. Institut khimicheskoy fiziki AN SSSR, Moskva.

KORSUN', A. (Kiyev)

Spectrophotometry of the solar corona of June 30, 1954. Astron. tsir. no.197:5-6 N '58. (MIRA 12:7)

1. Kafedra astronomii Kiyevskogo gosudarstvennogo universiteta. (Sun--Corona)

S/035/62/000/008/011/090
A001/A101

AUTHOR: Korsun', A. A.

TITLE: An investigation of changes in closure errors

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 8, 1962, 18, abstract 8A145 (In collection: "Predvarit. rezul'taty issled. kolebaniy shirot i dvizheniya polyusov Zemli, no. 2", Moscow, AN SSSR, 1961, 92 - 97, English summary)

TEXT: Behavior of closure errors in latitude observations for many years has an appearance of a systematic course of its variations. Studying G. A. Lange's observational series at Kitab a conclusion has been drawn that the change in errors of closure was of a periodic nature with a period of 2.1 years and 0"2 amplitude. The author assails this conclusion and points out that the apparent systematicity of changes in closure errors was due to accumulation of random errors only; it manifested itself at graphical smoothing of random deviations in the process of sliding summing. To corroborate this, correlation functions of closure error deviations are plotted on the basis of observations at Midzusawa, Carloforte, Yukaya for 1899 - 1935. The functions found are compared with the theoretical one which was calculated on assumption of the independent random character of closure

Card 1/2

S/035/62/000/008/011/090
A001/A101

An investigation of changes in closure errors

error deviations from the mean value. The author notes a good agreement between the observed and theoretical correlation functions, which represents the evidence on the absence of systematic course in behavior of closure errors.

Kh. Potter

[Abstracter's note: Complete translation]

Card 2/2

S/035/62/000/008/014/090
A001/A101

AUTHOR: Korsun', A. A.

TITLE: Bibliography of native publications on the problems of pole movements

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 8, 1962, 18, abstract 8A 148 (In collection: "Predvarit. rezul'taty issled. kolebaniy shirot i dvizheniya polyusov Zemli, no 2", Moscow, AN SSSR, 1961, 139 - 146)

TEXT: The bibliographic index is a continuation of the work by S. G. Kulagin (RZhAstr, 1955, no. 3, 960) and includes the works of Soviet and foreign authors on the problem of studying latitude variations and Earth's pole movements published from 1953 to 1959 (altogether 182 references). The number of corresponding abstracts in RZhAstr is indicated for all these publications.

Kh. P.

[Abstracter's note: Complete translation]

Card 1/1

KORSUN', A.A.; YAKUSHEVA, N.B.; YATSIKOV, Ya.S.; FEDOROV, Y. .P., otv. red.

[Results of observations with zenith telescopes in 1960-1963: Pulkovo, Gorkiy, Kitab, Poltava, Kazan, Irkutsk, Blagoveshchensk] Rezul'taty nabliudenii na zenit-teleskopakh v 1960-1963 gg.: [Pulkovo, Gor'kii, Kitab, Poltava, Kazan', Irkutsk, Blagoveshchensk.] Moskva, 1964. 50 p.
(MIRA 18:5)

1. Akademiia nauk URSR, Kiev, Holovna astronomichna observatoriia. 2. Chlen-korrespondent AN Ukr.SSR (for Fedorov).

23587
S/062/61/000/005/002/009
B118/B208

5.1190 2209 1297 1274

AUTHORS: Korsun, A.G., Shlyapintokh, V. Ya., and Emanuel', N. M.

TITLE: Catalytic decomposition of ethyl benzene hydroperoxide

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 5, 1961, 788 - 796

TEXT: The systems consisting of a metal salt of variable valence and a peroxide are frequently used as catalysts in the oxidation of hydrocarbons and as initiators in the radical polymerization. The mode of action of such systems is based on the fact that they produce free radicals and thus increase the initiation rate of the chains. The salt catalysts undergo a change during the oxidation process in the oxidation of hydrocarbons. During the reaction the valence of the metal changes, and complexes are formed from the metal salt and the reaction products with the metal salt being precipitated in certain cases. The catalyst may play a part not only in the initiation of the chains, but also in the chain rupture and, apparently, in the elongation of the chains. Such changes of the catalyst and its manifold functions highly complicate the reaction kinetics and

Card 1/3

make it difficult to understand the mechanism of the catalytic effect of metal salts. In order to solve this general problem the authors analyzed the reaction of the catalytic oxidation of hydrocarbons, and studied each single stage. In the present paper one of the most important reaction stages of the catalytic reaction is studied, i. e., the reaction of a hydroperoxide with a metal salt whose metal has a variable valence. The kinetics of the catalytic decomposition of ethyl benzene hydroperoxide was investigated. The initial decomposition rate is proportional to the concentration of the catalyst (of copper stearate and hydroperoxide). At a high hydroperoxide excess, the catalyst is converted to the inactive form of monovalent copper during the reaction, which is stopped. The amount of decomposed hydroperoxide increases with increasing concentration of the catalyst and of hydroperoxide, as well as with rising temperature. Decomposition mainly proceeds according to the catalytic mechanism; the chain mechanism is of minor importance. When the reaction was carried out in the presence of an inhibitor (diphenyl picryl hydrazyl) it was found that the rate constant of the inhibitor consumption considerably exceeds that of the catalytic decomposition of the hydroperoxide. The diphenyl picryl hydrazyl was synthesized in the Institut organicheskoy khimii AN SSSR

Catalytic decomposition of...

(Institute of Organic Chemistry, AS USSR). The ethyl benzene hydroperoxide was obtained according to K. I. Ivanov (Ref. 5: Promezhutochnyye produkty i promezhutochnyye reaktsii avtookisleniya uglevodorodov (Intermediate products and intermediate reactions of hydrocarbon autooxidation) Gostoptekhizdat, 1949). There are 9 figures and 8 references: 6 Soviet-bloc and 2 non-Soviet-bloc. The 2 references to English-language publications read as follows: E. A. Braude, A. G. Brook, R. P. Linstead, J. Chem. Soc. 1954, 3574; C.E.H. Bawn, S. T. Mellish, Trans. Faraday Soc. 47, 1216 (1951).

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics of the Academy of Sciences USSR)

SUBMITTED: April 4, 1960

Card 3/3

58"

ACCESSION NR: AT4013173

$$T_2 = T_{2m}[1 - Me^{-k_2 x} - (1 - M)e^{-k_1 x}], \qquad (2)$$

show that with small eccentricities, the variation in the temperature of the liquid metal and cooling rod is directly proportional to the eccentricity. It follows from the first of these equations that the temperature distribution in the heat carrier is stabilized when the exponent is equal to 3; the length of the section of thermal stabilization is then given by $\sim \frac{\gamma c_p V_0}{2\lambda_T B_0}$ which is quite large for the liquid metal heat carriers. The changes in the temperature of the heat emitting surface are determined by changes in the temperature of the heat carrier and the temperature head; consequently, when the coefficient of heat exchange to the liquid metal is large, the change in temperature of the heat emitting surface is determined primarily by the change in temperature of the heat carrier. For the common heat carriers, the local coefficient of heat exchange in an eccentric annular ring

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ACCESSION NR: AT4013173

is proportional to $\frac{1}{y} R_e^{0.8}$, so that it decreases at a constriction in the ring, but in the case of a liquid metal heat carrier the opposite is true due to the presence of a constant component in the expression for Nu. Therefore, under these conditions, the change in temperature of the heat emitting surface can be calculated on the basis of the change in temperature of the liquid metal. Orig. art. has: 36 formulas and 1 figures.

ASSOCIATION: None

SUBMITTED: 00 DATE ACQ: 20Feb64 ENCL: 00

SUB CODE: MM, TD NO REF SOV: 001 OTHER: 002

Card 3/3

KORSUN, A. Ya.

"State of Activity of Carbonic Anhydrase in Acute Poisoning With Carbon Monoxide," by A. Ya. Korsun', Sb. Tr. Voyen-Med. Fak., Kharkov, 1955, 107-115 (from Referativnyy Zhurnal -- Biologiya, Moscow, No 18, 25 Sep 56, Abstract No 79,510)

"In healthy rabbits the state of activity of carbonic anhydrase is equal to 1.17-1.18. Fifteen minutes after the inhalation of 1.2-2.2 per-cent by volume of carbon monoxide, the activity of the anhydrase dropped more than 50 percent. Twenty-four hours later the initial indices were restored, the delay in restoration having occurred in only a few animals. The greatest drop in the activity of the anhydrase was noted in animals that perished. It may be assumed that in acute poisoning with carbon monoxide the chemical has a direct blocking effect on carbonic anhydrase."

Sum1239

KORSUN, F.

Calculation of an average diameter in tree trunks at breastheight. p. 445.
SBORNIK. RADA LESNICTVI. Praha.
Vol 29, no. 6, June 1956

SOURCE: EEAL - LC Vol. 5 No. 10 Oct. 1956

KORSUN, F.

AGRICULTURE

PERIODICALS SBORNIK RADA LESNICTVI VOL . 5, no. 2, Feb. 1959

Korsun, F. Competition and regenerati n of natural forest growths in the Transcarpathian Oblast. p. 113.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 5, May 1959, Unclass.

KORSUN, Fedor, inz., dr.

Remark on the Jan Borota article "Local substance tables for spruce." Les cas 9 no.6:590 Je '63.

1. Vyzkumna stanice, Vyzkumny ustav lesniho hospodarstvi a myslivosti, Krtiny.

KORSUN, Fedor, inz. dr.

Close grain wood and overground wood in spruce and pine. Les cas 10 no.12:1131-1144 D '64.

1. Research Institute of Forestry and Game Keeping, Zbraslav-Strnady, Research Station Krtiny.

Korsun, F.A.

LISAK, P.P.; KORSUN, F.A.

Drag harrow for transporting manure. Mekh. sil'. hosp. [8] no.12: 24 D '57. (MIRA 10:12)

1. Golovniy inzhener radgospu "Novo-Aydar," Voroshilovgrads'koi oblasti (for Lisak). 2. Golovniy agronom radgospu "Novo-Aydar," Voroshilovgrads'koi oblasti (for Korsun).
(Fertilizers and manures)

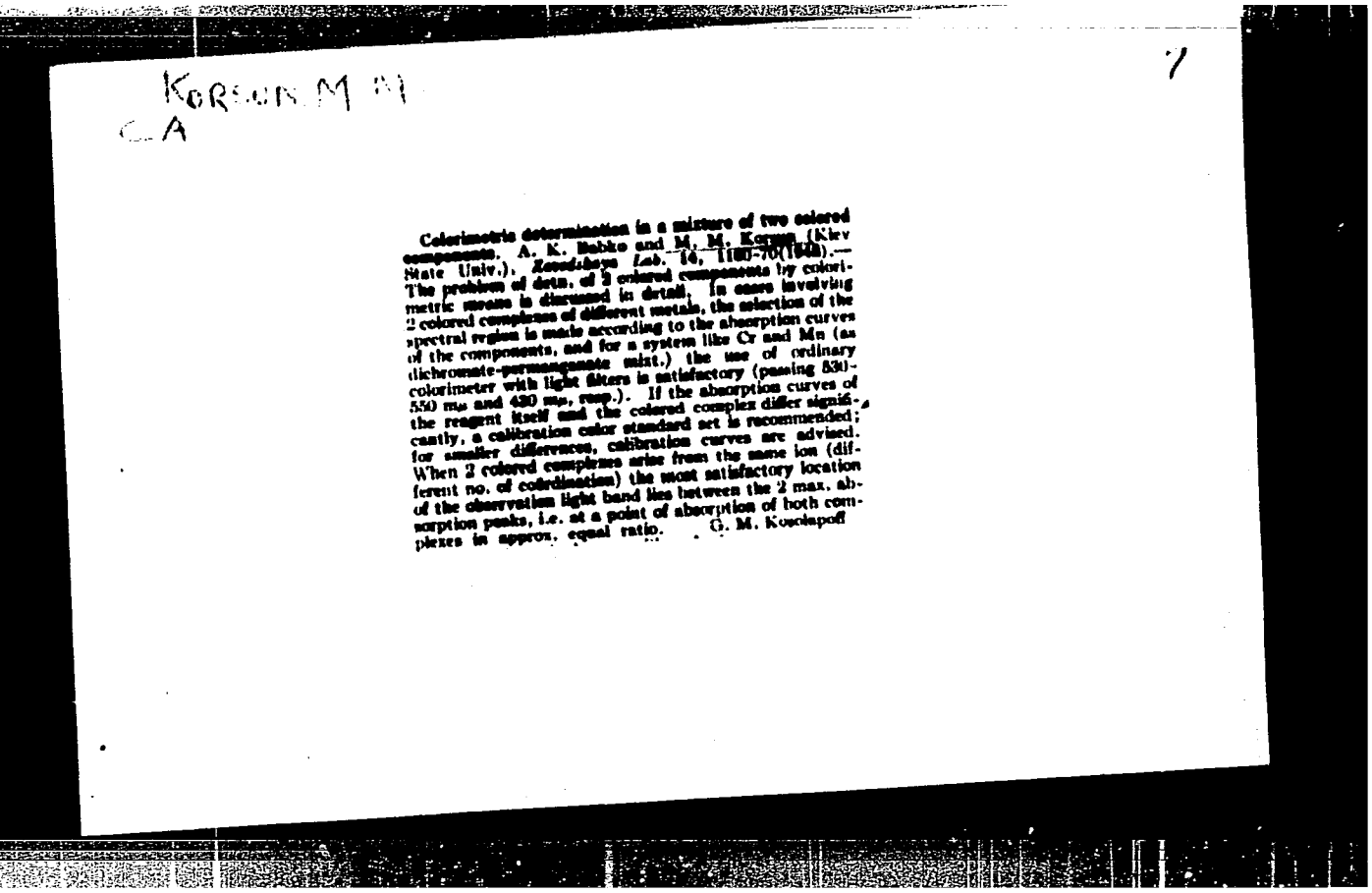
KORSUN, G.S., polkovnik meditsinskoy sluzhby; MIKHAYLOV, G.V., podpolkovnik meditsinskoy sluzhby

Some problems in the clinical and physiological rating of radar operators. Voen.-med.zhur. no.9:32-36 S '56. (MIRA 10:3)
(ELECTRICITY--PHYSIOLOGICAL EFFECT)
(RADAR--HYGIENIC ASPECTS)

KORSUN', M.

Use of black crushed stone reduces the cost of road surfacing. Avt.transp. 32 no.2:34 F '54. (MLRA 7:6)

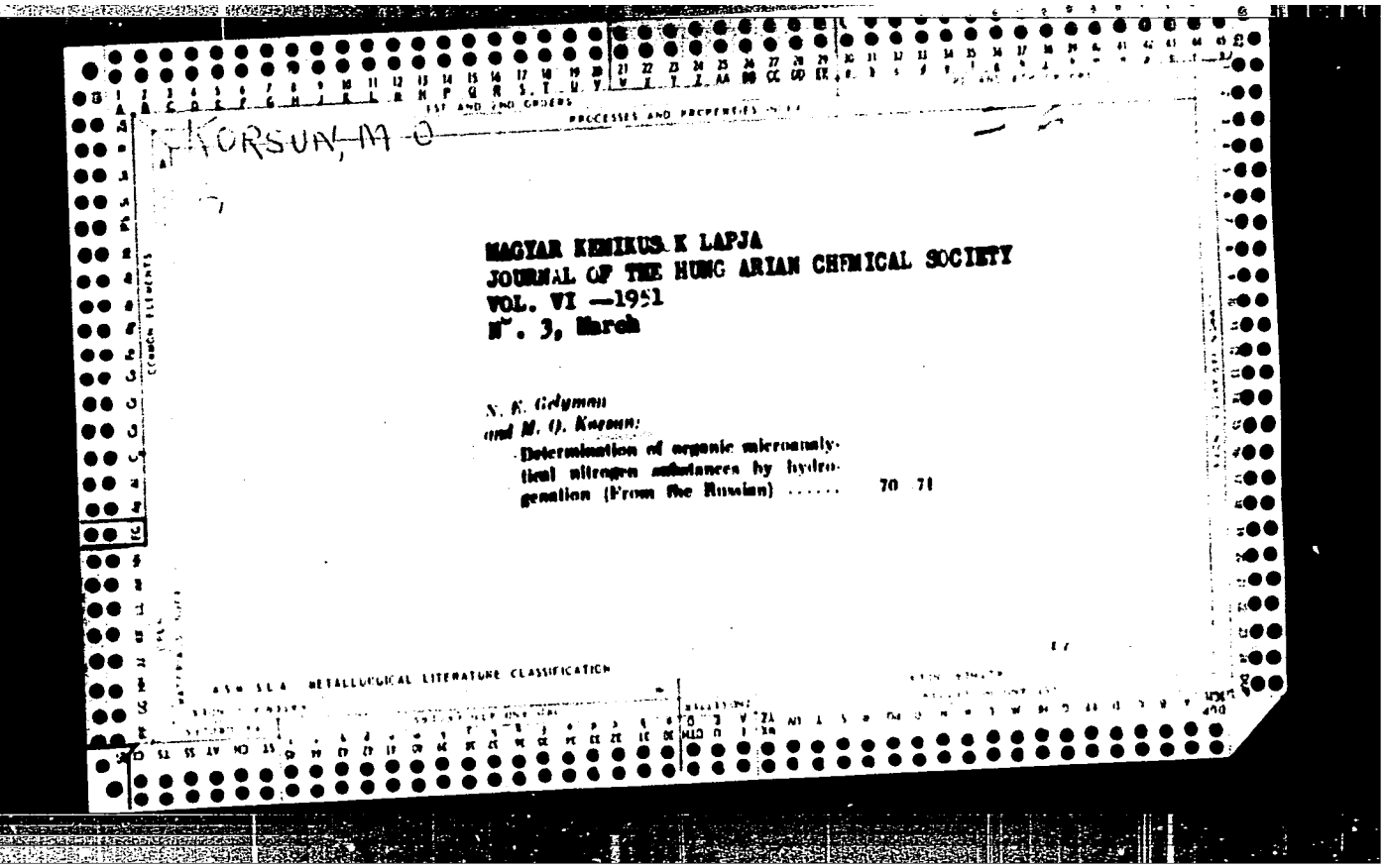
1. Nachal'nik Ternopol'skogo oshosdora. (Road construction)



KORSUN M M
CA

7

Colorimetric determination in a mixture of two colored components. A. K. Babko and M. M. Korsun (Kiev State Univ.). *Zavodskaya Lab.* 14, 1180-70(1948).—The problem of detn. of 2 colored components by colorimetric means is discussed in detail. In cases involving 2 colored complexes of different metals, the selection of the spectral region is made according to the absorption curves of the components, and for a system like Cr and Mn (as dichromate-permanganate mixt.) the use of ordinary colorimeter with light filters is satisfactory (passing 530-550 mμ and 430 mμ, resp.). If the absorption curves of the reagent itself and the colored complex differ significantly, a calibration color standard set is recommended; for smaller differences, calibration curves are advised. When 2 colored complexes arise from the same ion (different no. of coördination) the most satisfactory location of the observation light band lies between the 2 max. absorption peaks, i.e. at a point of absorption of both complexes in approx. equal ratio. G. M. Kosolapoff



KORSUN, M O

MAGYAR KEMIKUSOK LAPJA
JOURNAL OF THE HUNGARIAN CHEMICAL SOCIETY
VOL. VI —1951
No. 3, March

N. K. Gelyman
and M. O. Korsun:
Determination of organic micromanalytical nitrogen substances by hydrogenation (From the Russian) 70 71

SHILOV, P.M., prof., doktor tekhn.nauk; KORSUN', M.Ya., dotsent, kand. tekhn.nauk; KONOGRAY, B.Ya., gornyy inzhener

Reducing the noise of coal mining machinery. Ugol' Ukr. Vol.3 no.5:18-19 My '59. (MIRA 12:9)
(Coal mining machinery)

ZELENSKIY, N.M.; KORSUN', M.Ya.; STEFANOVICH, V.I.; TARTAKOVSKIY, B.N.; ANIKIYEV, I.Ya. (Moskva)

Mechanization of mining operations; underground and open-cut workings. I.R. Voroshilin. Reviewed by N.M. Zelenskii and others. Gor.shur. no.10:78-80 O '60. (MIRA 13:9)

1. Dnepropetrovskiy gornyy institut (for Tartakovskiy).
(Mining engineering--Equipment and supplies)
(Voroshilin, I.R.)

PRAVITSKIY, V.N., inzh.; KORSUN', M.Ya., kand.tekhn.nauk

Measuring device for testing buckets of rotary excavators and study of the process of cutting hard rock. Izv.vys.ucheb.zav.; gor.zhur. 6 no. 12:104-106 '63. (MIRA 17:5)

1. Dnepropetrovskiy ordena Trudovogo Krasnogo Znameni gornyy institut imeni Artema. Rekomendovana kafedroy gornykh mashin.

KORSUN', M.Ya., kand. tekhn. nauk; PRAVITSKIY, V.N., gornyy inzh.

Using rotary excavators for mining ore in the Kerch iron ore basin. Gor. zhur. no.7:18-20 Jl '64. (MIRA 17:10)

1. Dnepropetrovskiy gornyy institut.

KORSUN, N.A.

Device for removing burrs. Stan.i instr. 24 no.10:38 O '53. (MLRA 6:11)
(Gear-cutting machines)

KORSUN, N. N.

USSR/Electricity Feb 1948
Rectifiers, Mercury
Frequency Changers

"Frequency Tripler for Compensation of Extraneous Peak Characteristics in Mercury Arc Rectifier Installations," E. A. Man'kin, Candidate Tech Sci; N. N. Korsun, Engr. Moscow Transformer Factory imeni Kuybyshev, 2 pp

"Vest Elektro-Prom" No 2

In traction equipment voltage peaks not desirable as have an adverse effect on moving parts of the electric motor. Particularly hard on the tubes which burn out frequently.

PA47T35

S/144/60/000/04/009/017
E194/E455

AUTHORS: Akodis, M.M., Doctor of Technical Sciences, Professor and Korsun, P.A., Aspirant

TITLE: An Experimental Investigation of Synchronization Methods in Synthetic Switchgear-Testing

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Elektromekhanika, 1960, Nr 4, pp 57-66 (USSR)

ABSTRACT: In circuits for the synthetic testing of circuit-breakers, the breaker under test is isolated from the supply by an auxiliary switch, and the recovery voltage is applied to it from a bank of capacitors feeding through an inductance. The recovery voltage may be applied either at the instant of current interruption, with a scatter of a few microseconds, or about half a cycle before the current is interrupted, with a permissible scatter of some tens of microseconds. Accurate and simple synchronization is required under conditions of high-speed transient magnetic fields and this article describes circuits that satisfy these conditions. Circuits in which the recovery voltage is applied at the instant of current interruption are

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S/144/60/000/04/009/017
E194/E455

An Experimental Investigation of Synchronization Methods in Synthetic Switchgear-Testing

considered first. The inherent recovery voltage of the interuppted circuit may serve to provide the synchronization, using the circuit shown in Fig 1. Here the inherent recovery voltage opens a blocked thyratron to apply the test recovery voltage. A recommended thyratron grid circuit is shown in Fig 2a. Tests were made using the circuit of Fig 1 in a station for the synthetic testing of switchgear; the experimental test conditions are described and typical test oscillograms are shown in Fig 3. The main test results, given in Table 1, indicate that on breaking a current of 1000 A with a frequency of 50 c/s the delay in connecting the recovery voltage was 15 microseconds, with a scatter of $\pm$ 0.8 microseconds. This and other results quoted are considered very satisfactory. Synchronization using a peak transformer operated from the interrupted current is then considered. The peak transformer is briefly described with reference to the diagram of Fig 4. It was found that to adjust the delay

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S/144/60/000/04/009/017
E194/E455

An Experimental Investigation of Synchronization Methods in Synthetic Switchgear-Testing

by altering the air gap was too coarse. Instead, fine adjustment was obtained by altering the compression of the peak transformer core; typical calibration results are tabulated. Coarser adjustments could be made by slightly altering the engagement of the yoke, as illustrated diagrammatically in Fig 4a. Used jointly, the two methods of adjustment gave satisfactory control. Typical oscillograms obtained in the course of the tests are shown in Fig 5 and main results are given in Table 3. It is concluded that a very satisfactory synchronizing circuit can be based on a peak transformer even though it is such a cheap and simple device. The precise operation of the resulting synthetic switchgear-testing circuit will be seen from the oscillogram of Fig 6 which shows passage of the current through zero and application of recovery voltage. Circuits in which the recovery voltage is applied just before the current is interrupted are then described. The necessary signals can be obtained from a two-winding peak

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An Experimental Investigation of Synchronization Methods in Synthetic Switchgear-Testing

transformer with adjustable air-gap, as shown diagrammatically in Fig 4b. The main core is made of fermalloy and carries a secondary winding connected to the thyratron grid circuit, as shown in Fig 2b. The primary winding, on the other limb, is connected to the current being interrupted. A typical oscillogram is given in Fig 7 and the test results in Table 4. The tests were made with an interrupted current frequency of 154 c/s so that at the normal frequency of 50 c/s, the displacement would be three times greater. The tabulated results demonstrate the possibility of obtaining the required displacement of the peak and of controlling the displacement smoothly. The scatter in the tests was $\pm$ 5 microseconds, which is satisfactory. There are 7 figures, 4 tables and 3 Soviet references.

ASSOCIATION: Ural'skiy politekhnicheskiy institut
(Ural Polytechnical Institute)

SUBMITTED: December 30, 1959

Card 4/4

CHAKABAYEV, S.Ye.; IMASHEV, N.U.; TOKAREV, V.P.; KONONOV, Yu.S.; KORSUN, P.Ya.; VOTSALEVSKIY, E.S.; IVANOV, V.A.; FARAFONOVA, N.V.; SHAKHOVOY, A.I.

Uzen' gas and oil field; outline of geology and oil and gas potentials. Izv. AN Kazakh. SSR. Ser. geol. 21 no.4:16-30 Jl-Ag '64. (MIRA 17:11)

1. Institut geologii i geofiziki, Gur'yev.

VICHISENKO, Ye.F.; KORSUN, V.A.

Work mechanization level in steelmaking departments of metallurgical plants. Met. i gornorud. prom. no.6:19-21 N-D '64. (MIRA 18:3)

ACCESSION NR: AR4015554 S/0081/63/000/024/0620/0620

SOURCE: RZH. Khimiya, Abs. 24T50

AUTHOR: Korsun', V. M.

TITLE: Changes in electrical conductivity of polystyrene when exposed to visible light

CITED SOURCE: Nauchn. zap. Dnepropetr. un-t, v. 77, 1962, 54-59

TOPIC TAGS: polystyrene, polystyrene electrical conductivity, light related conductivity variation

ABSTRACT: The electrical conductivity of polystyrene during exposure to visible light was studied at temperatures ranging from 20 to 100C. Electrodes were fastened to specimens prepared from 0.05 mm thick sheets. Conductivity was measured on equipment (schematic layout given) using, as the light source, an incandescent lamp (500 watt) fed from a standard lighting circuit. It was established that the current passing through a specimen decreases sharply during the initial moments after the light is switched on, then recovers slowly to levels exceeding those in the absence of light. Results of the measurements are presented and evaluated. I. U.

Card 1/1

L 24288-66 EWT(1)/EWT(m)/T/EWP(t) IJP(c) JD

ACC NR: AP6007003 SOURCE CODE: UR/0051/66/020/002/0308/0315

AUTHOR: Korsun', V. M.

ORG: none

TITLE: Some results of a study of electroluminescent zinc sulfide single crystals

SOURCE: Optika i spektroskopiya, v. 20, no. 2, 1966, 308-315

TOPIC TAGS: zinc sulfide, single crystal, electroluminescence, electron microscopy, electron recombination

ABSTRACT: Inasmuch as numerous earlier investigations have shown that electroluminescence from the entire crystal differs in several respects from luminescence produced in microscopic regions inside the crystal (the comet effect), the author studied the surface of electroluminescent ZnS-Cu single crystals by means of an electron microscope, and verified the existence of a large number of inclusions of another phase. The characteristics of the glows of the individual comets were then investigated. The samples were synthesized from the gas phase and contained (1--3) $\times 10^{-3}$ g/g of copper. The test procedure and the method of applying the electric field to the sample are described in detail. The light emitted by individual comets in a single crystal was measured photoelectrically using an ordinary optical microscope, and a photomultiplier. From the time relation between the excitation pulses and the luminescence pulses it is deduced that the excitation and recombination stages are separated in time. The observed inclusions were usually aligned along the c axis

Card 1/2 UDC: 535.376 : 548.0

L 24288-66

ACC NR: AP6007003

of the hexagonal crystal and the electroluminescence lines were always perpendicular to that direction. The electroluminescence lines, which usually coincide with the direction of motion of the free charges, did not coincide with the direction of the external electric field, because of the anisotropy of the crystal. A connection was established between the direction of the comet tails, the polarity of the applied voltage, and the time of light emission. The distribution of the electroluminescence lines was studied using various methods of exciting the sample. The brightness waves of the separate lines were recorded when the luminescence was excited by combined sinusoidal voltage and synchronized pulse voltage of particular waveform. The results are analyzed from the point of view of the connection between the luminescent lines and the inclusions. The author thanks F. I. Kolomoytsev for a discussion of the results and continuous interest. Orig. art. has: 4 figures.

SUB CODE: 20/ SUBM DATE: 28Dec64/ ORIG REF: 001/ OTH REF: 009

Card 2/2 FV

L 13101-63 EWT(1)/BDS AFFTC/ASD/SSD

ACCESSION NR: AP3003415 S/0051/63/015/001/0089/0094

AUTHOR: Kolomoytsev,F.I.; Korsun',V.M.; Lazorina,S.M.; Stauer,E.V. 55 54

TITLE: Red electroluminescence of ZnSe and CdS:Cu phosphors

SOURCE: Optika i spektroskopiya, v.15, no.1, 1963, 89-94

TOPIC TAGS: electroluminescence, ZnSe phosphor, CdS phosphor, ZnSe-CdS phosphor

ABSTRACT: The brightest electroluminophors now known (zinc sulfide phosphors) can be prepared to emit predominantly in the blue, green or yellow regions, depending on the activator introduced. ZnS:Cu has been reported to electroluminesce red, but its intensity is low. The paper describes the preparation of red electroluminescing phosphors by heating luminescence pure ZnSe with CdS and different fluxes with limited access of air. The lattice constants of these compounds are close so that solid solutions should form in a wide range of concentrations. The authors also prepared and tested CdS:Cu and ZnSe:Cu phosphors. The electroluminescence spectra were recorded on a Zeiss monochromator coupled to an FEU-22 photomultiplier. The powdered phosphors were suspended in silicone oil as a demountable capacitor. The conductivity of the phosphors was found by measuring the resistance of the capacitor; the dielectric constant by measuring the capacitance by means of

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L 13101-63
ACCESSION NR: AP3003415

low and high frequency bridges. Curves showing the variation in electroluminescence brightness as a function of the flux concentration, heating time, heating temperature, and so on are reproduced. Both the photo- and electroluminescence of the phosphors deteriorate with time when these are stored in the presence of air. The effects of different factors including the Cu concentration are discussed. The properties of ZnSe:CdS phosphors vary, but generally the addition of CdS shifts the emission of ZnSe to the long wavelength side. "In conclusion the authors express their gratitude to A.I.Andriyevskiy for some measurements." Orig.art.has: 6 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 16Jul62 DATE ACQ: 30Jul63 ENCL: 00

SUB CODE: PH NO REF SOV: 006 OTHER: 005

Card 2/2

S/0051/64/016/001/0092/0096

ACCESSION NR: AP4011489

AUTHOR: Kolomoytsev, F.I.; Korsun', V.M.

TITLE: Combined effect of short electric pulses and a sinusoidal voltage on the electroluminescence of ZnS:Cu phosphor

SOURCE: Optika i spektroskopiya,v.16, no.1, 1964, 92-96

TOPIC TAGS: electroluminescence, zinc sulfide phosphor, copper activated zinc sulfide, pulse excitation, ac excitation, active current, conductivity, brightness wave, injection current

ABSTRACT: The paper describes the results of observation of the conductivity and luminescence of ZnS:Cu phosphor under joint excitation by a sinusoidal voltage and square pulses. The phosphor was prepared by the procedure described by O.N.Kazankin, F.M.Pekerman and A.N.Petoshina (Sborn.tr.GIPKh,No.43,43,1960). It was mixed in the proportions of 1 to 1 with silicone oil and this mixture was used to fill an electroluminescent capacitor, one electrode of which was a plate of conducting glass, the other a plate of aluminum. The duration of the square pulses was 10 microsec. The phase of the pulses with respect to the sinusoidal voltage was varied in the

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ACC.NR: AP4011489

full range from 0 to 4π. Under these conditions the short pulses may be regarded as a sort of probe or means of determining what occurs during different phases of excitation. The results of the measurements of luminescence and conductivity indicate that excitation and recombination of the luminescence centers occurs at different points of the applied ac voltage cycle. The current through the luminophor has the character of an injection current and is responsible for excitation of the phosphor. Orig.art.has: 2 figures.

ASSOCIATION: none

SUBMITTED: 04Apr63 DATE ACQ: 14Feb64 ENCL: 00

SUB CODE: PH NR REF SOV: 002 OTHER: 004

Card 2/2

ACCESSION NR: AP4009472 S/0051/63/015/006/0826/0828

AUTHOR: Korsun', V.M.; Kostyalev, S.A.

TITLE: Electroluminescence of ZnS-Mn sublimate phosphor, excited by unipolar electric pulses

SOURCE: Optika i spektroskopiya, v.15, no.6, 1963, 826-828

TOPIC TAGS: electroluminescence, electroluminophor, sublimate phosphor, zinc sulfide phosphor, ZnS-Mn phosphor, pulse excitation, brightness wave

ABSTRACT: In the sublimated state Mn activated ZnS phosphor forms strong, uniform transparent polycrystalline films. In contrast to other zinc sulfide phosphors ZnS-Mn sublimate phosphor is readily excited by both dc and ac fields. In view of this it was deemed of interest to investigate the electroluminescence of ZnS-Mn sublimated films under excitation by unipolar voltage pulses and under the simultaneous influence of a pulse and biasing electric field. The specimens were prepared by the conventional two-stage procedure (N.A.Vlasenko, Materialy* 7-go soveshch.po lyuminestsentsiy,p.365,Tartu,1959). The investigated films were 2 microns thick and were deposited on glass substrates precoated with a conducting layer of tin dioxide. The

Card 1/2

AP4009472

second electrode was an aluminum layer deposited by vacuum evaporation directly onto the film. The electroluminescence was excited by square pulses with durations from 50 to 2000 microsec and a repetition rate of 20 to 50 pps. The spectra were recorded by means of an FEU-29 photomultiplier coupled to an ENO-1 oscilloscope. The shape of the brightness waves produced by short and long square voltage pulses is shown in Fig.1 of the Enclosure. The behavior of the electroluminescence characterized in the figure is very different from that observed in the case of pulse excitation of zinc sulfide phosphors doped with copper. In contrast to the case of copper doped phosphors, there is no initial flash upon application of the field. Measurements of the amplitude of the brightness waves as a function of the pulse voltage showed that the amplitude is a linear function of the voltage, but the slope of the brightness versus voltage plots differs for different pulse durations and also from the slope obtained with a sinusoidal voltage. The luminescence brightness in the case of simultaneous application of pulses and a dc biasing field is close to the value of the brightness produced by a pulse equal to the algebraic sum of the pulse and biasing field. Thus, the electroluminescence brightness of ZnS-Mn phosphors is determined primarily by the total strength of the field, regardless of its form. "The author is grateful to F.I.Kolomoytsev for his interest in the work and valuable discussions." Orig.art.has: 1 formula and 2 figures.

Card 2/4

L 2621-65 EWT(l)/EWT(m)/EWP(e)/EWP(t)/EEC(b)-2/EWP(k)/EWP(b) Pf-4
EP(e) JD

ACCESSION NR: AP4044855 S/0051/64/01 /003/0422/0425

AUTHORS: Korsun', V. M.; Kosty*lev, S. A.

TITLE: On the flareup of electroluminescence in powdered ZnS-Cu phosphors

SOURCE: Optika i spektroskopiya, v. 17, no. 3, 1964, 422-425

TOPIC TAGS: electroluminescence, luminor, zinc sulfide optic material, luminescence research

ABSTRACT: To check on the hypothesis advanced by C. Haake (J. Appl. Phys. v. 28, 245, 1957) that the flareup of electroluminescence in ZnS-Cu phosphors is connected with the increase in the number of free electrons participating in the impact ionization of the glow centers, the authors investigated the flareup of electroluminescence produced by excitation with voltages of different waveforms, as a function of the prior history of the samples. Powdered ZnS-Cu phos-

Card 1/3

phors were tested, prepared in accordance with a procedure proposed by O. N. Kazankin et al. (Sb. tr. GIPKh, No. 43, 43, 1960). The samples were placed in a dismountable electroluminescent capacitor with electrodes 0.1 mm apart. The glow of the sample was measured with a photomultiplier whose signal was applied to an oscilloscope and photographed from its screen. The study was devoted to the flareup of electroluminescence during the initial period of time after connecting the sample to the voltage source. Sinusoidal and unipolar pulsed fields were applied. In the case of a sinusoidal field, the amplitude of the brightness waves was found to decrease exponentially with the frequency. Tests with a pulsed field, made with and without supplementary illumination with ultraviolet, indicate that the flareup of electroluminescence is connected with accumulation of space charge inside the grains of the luminor. "In conclusion the authors thank V. I. Kolomeytsov for continuous interest in the work and S. V. Lomakina for help with the measurements." Orig. art. has: 3 figures and 1 formula.

L 12621-65
ACCESSION NR: AP4044855

ASSOCIATION: None

SUBMITTED: 10Nov63 ENCL: 00

SUB CODE: OP, IC NR REF SOV: 001 OTHER: 001

Card 3/3

L 30342-66 EWT(1)/EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6015430 SOURCE CODE: UR/0051/66/020/005/0859/0865

AUTHOR: Kolomoytsev, F. I.; Korsun', V. M.

ORG: none

TITLE: Electroluminescence of zinc sulfide as recombination controlled by an electric field

SOURCE: Optika i spektroskopiya, v. 20, no. 5, 1966, 859-865

TOPIC TAGS: electroluminescence, zinc sulfide, recombination luminescence, electric field, crystal phosphor

ABSTRACT: The low inertia of the change in the luminescence brightness of a phosphor crystal with a change in the controlling electric field is taken as an indirect indication that restoration of equilibrium between the concentrations of free and captured charges takes place rapidly. This indirect experimental evidence is used as a basis for an approximate calculation of electroluminescence brightness waves as a process controlled by the electric field. A linear geometric approximation is used and processes on a single luminescence line are considered assuming that the direction of this line coincides with that of preferred electric conductivity in the crystal. Analytical expressions are given for the kinetics of charge motion in terms of external voltage and electric field strength with regard to charge density, specific inductive

UDC: 535.376

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L 30342-66

ACC NR: AP6015430

capacitance and average charge mobility. It is shown that as the leading edge of the injected charge moves through the crystal, the electric field intensity which controls this motion increases continuously due to motion of the leading edge. The natural conductivity of the crystal tends to balance the resultant nonhomogeneity in the electric field. An approximate expression is derived for electroluminescence brightness as a function of time in zinc sulfide crystals. The theoretical approximation is compared with experimental data on attenuation of luminescence in copper-activated zinc sulfide phosphor single crystals. The results show that electroluminescence may be treated as a process caused by the motion of excess space charge injected into the phosphor material from the conductive phase. Orig. art. has: 2 figures, 21 formulas. [14]

SUB CODE: 20/ SUBM DATE: 29Jan65/ ORIG REF: 003/ OTH REF: 006/

ATD PRESS: 5016

Card 2/2

L 28330-66 EWT(1) IJP(c)

ACC NR: AP6013081 SOURCE CODE: UR/0048/66/030/004/0684/0687

54
8

AUTHOR: Kolomoytsev, F. I.; Korsun', V. M.

ORG: Dnepropetrovsk State University (Dnepropetrovskiy gosudarstvennyy universitet)

TITLE: Electroluminescence of ZnS:Cu phosphors as recombination controlled by the electric field /Report, Fourteenth Conference on Luminescence held in Riga 16-23 September 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 4, 1966, 684-687

TOPIC TAGS: electroluminescence, crystal phosphor, zinc sulfide, recombination luminescence, electric field

ABSTRACT: Microscopic studies have revealed that electroluminescence of ZnS:Cu phosphors develops primarily in microvolumes in the form of thin luminous lines, sometimes called "comets". A.G.Fisher (J.Electrochem. Soc., 110, 733, 1963) hypothesized the existence of minute acicular inclusions, presumably of a second conducting phase of copper sulfide. In view of the difficulty of examining such inclusions with an optical microscope, the authors employed an electron microscope and the replica techniques for examining sections of hexagonal single crystals cut parallel and normal to the c axis. Linear caverns with dimensions of tenths of a micron and up were observed on polished surfaces. Etching brought out more caverns, but failed to

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L 28330-66

ACC NR: AP6013081

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disclose any needle-like inhomogeneities. Concurrently with the electron microscope studies an optical microscope was employed to observe the electroluminescent formations. The lines or comets observed were oriented parallel to the elementary parallelogram of the hexagonal lattice. In some cases one comet head had multiple tails extending at an angle of 60 or 120° to each other. Sometimes it could be established that the brightest part of the luminous line, the comet head, was situated at an inclusion. There were recorded the voltage and time dependences of the brightness of individual comets under different forms of excitation: square pulses and a sinusoidal voltage. Under square pulses comets headed in one direction flashed with the rise of the pulse, while comets headed in the opposite direction flashed at termination of the pulse. With ac electroluminescence was observed only during one-half cycle. In addition, brightness waves from an individual comet were observed during simultaneous action of ac and dc. It is concluded that although there undoubtedly are present in electroluminescent ZnS:Cu crystals small inclusions of Cu_2S, there are no discernable inhomogeneities corresponding precisely to the luminous lines (comets). There is reason to assume that the electroluminescent lines extend approximately in the directions of best conduction. It would appear difficult to interpret the experimental data from the standpoint of the impact ionization. An attempt is made to explain and describe the effects as a recombination process controlled by the local electric field. Some theoretical calculations that are generally consistent with the experimental data are adduced. Evaluations lead to a reasonable value for the carrier mobility. Orig. art. has: 6 formulas.

SUB CODE: 20/ SUBM DATE: 00/ ORIG REF: 000/ OTH REF: 005

Card 2/2 CC

KORSUN, V.N.

Modernizing the ShP-1 dovetailing machine. Der. prom. 7 no.1:23-24 Ja '58. (MIRA 11:1)

(Woodworking machinery)

KORSUN, V.N.

Fastening sandpaper on disk polishing machine. Der. prom. 7 no. 6:21 Je '58. (MIRA 11:8)
(Grinding machines)

KORSUN, V.N.

Special machines for boring and milling holes. Der.prom. 7 no.9:23-24 S '58. (Drilling and boring machinery) (MIRA 11:11)

KORSUN, V.M. (Khar'kov)

Modernization of the SF 30-1 four-sided planer. Sbor.vnedr.rats. pred. v les. i meb.prom. no.2:36-42 '59. (MIRA 13:8)
(Planing machines)

KORSUN, V.N.

Modernizing the SP-30-1 four-way planer. Der.prom. 8 no.2:23-24 F '59. (MIRA 12:2)
(Planing machines)

KORSUN, V.N.

Cart for the transportation of parts and blanks. Der. prom. 8 no.8:24 Ag '59. (MIRA 12:12)
(Industrial equipment)

KORSUN, V.N.

Protective shielding for milling machines. Der.prom. 9 no.1: 24 Ja '60. (MIRA 13:4)
(Woodworking machinery--Safety appliances)

KORSUN, V.N.

Attachment for gluing the covers of radio receiver cases.
Der.prom. 9 no.5:25 My '60. (MIRA 13:7)
(Gluing) (Radio—Equipment and supplies)

KORSUN, V.N.

Sanding of wooden parts with metal threated disks. Der.prom. 9 no.10:27-28 O '60. (MIRA 13:10)
(Sanding machines)

KORSUN, V.N.

Clamping attachment for polishing radio set cases. Der. prom. 10 no. 4:24 Ap '61. (MIRA 14:4)

(Grinding machines)

RADCHIK, I.I., red.; TSVETKOV, D.A., red.; KORSUN, Ye.P., ved. red.; POLOSINA, A.S., tekhn. red.

[Instructions for the selection of apparatus, equipment, appliances, and receptacles for liquefied gas; a catalog-handbook]Ukazaniia po vyboru apparatury, oborudovaniia, armatury i kip dlia szhizhennogo gaza; katalog-spravochnik. Moskva, Gostoptekhizdat, 1962. 161 p. (MIRA 15:12)

1. Gosudarstvennyy institut po proyektirovaniyu magistral'nykh gazoprovodov i sooruzheniy gazovoy promyshlennosti Yuga.
(Liquefied petroleum gas)

KORSUN, Ye.P., ved. red.; STAROSTINA, L.D., tekhn.red.

[Unified time norms for construction and assembly work in drilling] Edinye normy vremeni na stroitel'no-montazhnye raboty v burenii. Moskva, Izd-vo "Nedra," 1964. 223 p. (MIRA 17:4)

1. Moscow. TSentral'noye byuro promyshlennykh normativov po trudu.

RYABTSEV, N.I., red.; BUKHIN, V.Ye., red.; VIGDORCHIK, D.Ya., red.; IVANOV, N.P., red.; KNAPP, K.K., red.; KOZLOV, S.S., red.; PROFERANSOV, V.P., red.; SLOBODKIN, M.S., red.; SHAROVATOV, L.P., red.; BYKOVA, L.B., ved. red.; KORSUN, Ye.P., red.; USHAKOVA, A.F., ved. red.; POLOSINA, A.S., tekhn. red.

[Gas equipment, apparatus, and fittings; reference book]Gazovoe oborudovanie, pribory i armatura; spravochnoe rukovodstvo. Moskva, Gostoptekhizdat, 1963. 469 p. (MIRA 16:4)
(Gas, Natural--Pipelines) (Gas appliances)

POLEY, S.I.; KUZIN, P.I.; KORSUN, Ye.P., ved. red.; VORONOVA, V.V., tekhn. red.

[The knowledge of economy should be available to every gas industry worker] Ekonomicheskie znaniia - kazhdomu rabotniku gazovoi promyshlennosti. Moskva, Gostoptekhizdat, 1963. 28 p. (MIRA 16:8)

(Gas industry--Management) (Pipelines)

BAGRAMOV, R.A.; KORSUN, Ye.P., ved. red.

[Handbook for the operation of drilling lines] Rukovodstvo po ekspluatatsii talevykh kanatov v burenii. Moskva, Gostoptekhizdat, 1964. 39 p. (MIRA 17:6)

1. Moscow. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut neftyanogo mashinostroyeniya.

KORSUN, Ye.P., vedushchiy red.

[Unified production standards and prices for enterprises of the peat industry] Edinye normy vyrabotki i rastsenki dlia predpriiatii torfianoi promyshlennosti. 2., perer. izd. Moskva, Nedra, 1964. 203 p. (MIRA 17:7)

1. Moscow. TSentral'noye byuro promyshlennykh normativov po trudu.

VOLOGDIN, Ya.I., inzh.; KORSUN, Ye.P., ved. red.

[Safety measures in loading, unloading, stacking, and transporting steel pipes and sections] Tekhnika bezopasnosti pri razgruzke, pogruzke, ukladke i perevozke stal'nykh trub i sektsii. Moskva, Izd-vo "Nedra," 1964. 70 p. (MIRA 17:7)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut po stroitel'stvu magistral'nykh truboprovodov.

BABITSKIY, Il'ya Filippovich; VIKHMAN, Georgiy L'vovich; VOL'FSON, Samuil Iosifovich; KORSUN, Ye.P., ved. red.

[Designing and constructing the apparatus of petroleum refineries] Raschet i konstruirovanie apparatury neftepererabatyvaiushchikh zavodov. 2. perer. i dop. izd. Moskva, Nedra, 1965. 903 p. (MIRA 18:2)

T-5

USSR/Human and Animal Physiology. Circulation

Abs Jour : Ref Zhur - Biol., No 14, 1958, No 65288

Author : Korsun Yu.S.
Inst : -
Title : Parabiotic Phases in the Pathogenesis of Vascular Disturbances in the Brain Associated with Hypertensive Disease.

Orig Pub : V sb.: Uchenie N.E. Vvedenskogo v klinich. praktike. Odessa, 1957, 120-123

Abstract : The reflex contractions of the quandriceps muscle upon stimulation of the sole of the foot with an electric current were studied in 68 patients with hypertensive disease. In patients with blood pressures of 140/85--160/90 the contraction appeared after a brief latent period, was tetanic in nature and of considerable amplitude, and compensatory and paradoxical phases were noted. In individuals with blood pressures of 150/90--180/100 the reflex reactions were characterized by an increase in the tonic component, while

Card : 1/2

LYUSH, Dimitriy Vasil'yevich; NIKOLAYEV, Boris Nikolayevich; KORSUNENKO, A.A., inzh., retsenzent; ARKHANGEL'SKIY, Yu.V., inzh., retsenzent; SIVINTSEV, Yu.V., kand. tekhn. nauk, red; VLASOVA, Z.V., red.; SHISHKOVA, L.M., tekhn. red.

[Dosimetric control on atomic ships] Dozimetricheskii kontrol' na atomnykh sudakh. Pod red. Iu.V.Sivintseva. Leningrad, Sudpromgiz, 1962. 130 p. (MIRA 15:6)
(Atomic ships—Safety measures)
(Radiation—Dosage)

ZADONTSEV, Vladimir Ivanovich; KORSUNENKO, Anatoliy Afanas'yevich; NIKOLAYEV, Boris Nikolayevich; RYKOV, Mikhail Ivanovich; ZHIL'TSOV, I.F., kand. med. nauk, retsenzent; GORSHKOV, G.V., doktor tekhn. nauk, nauchn. red.; KVOCHKINA, G.P., red.; NIKITINA, M.I., red.

[Dosimetry of radioactive gases and aerosols on ships] Dozimetriia radioaktivnykh gazov i aerozolei na sudakh. Leningrad, Sudostroenie, 1965. 202 p. (MIRA 18:4)

KORSUNKIYEV, TS.K.

Public health system in the Kalmyk A.S.S.R. under Soviet rule.
Sbor. nauch. rab. Elist. protivochum. sta. no. 1:13-17 '59.
(MIRA 13:10)

(KALMYK A.S.S.R.--PUBLIC HEALTH)

KORSUNOV, M.V.; SEL'VANYUK, I.M., red.; PINCHUK, A.P., red.izd-va; IVANOVA, R.N., tekhn. red.

[Automation and mechanization of welding; new developments in welding at the "Krasnyi Kotel'shchik" Plant in Taganrog] Avtomatizatsiia i mekhanizatsiia svarki; novoe v svarochnom proizvodstve na Taganrogskom zavode "Krasnyi kotel'shchik," Rostov-na-Donu, Rostovskoe knizhnoe izd-vo, 1961. 102 p. (MIRA 17:3)

1. KORSUNOV, V.

2. USSR (600)

4. Dairying - Accounting

7. Method for analyzing plan fulfillment of milk output and its cost on stat farms, Bukhg. uchet 12 No. 2, 1953.

9. **Monthly List of Russian Accessions**, Library of Congress, June 1953. Unclassified.

1. KORSUNOV, V.
2. USSR (600)
4. Dairying
7. Effect of production quality on the amount of storage. Moloch.prom., 14, no. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

KORSUNOV, V.

Analysis of the profitableness of stockbreeding on state farms. Den. i kred. 13 no.12:49-55 D '55. (MLRA 9:4)
(Stock and stockbreeding)

KORSUNOV, V.I., kandidat ekonomicheskikh nauk.

Financial analysis of an enterprise. Leg.prom. 14 no.6:10-15 Je '54. (MLRA 7:8)
(Factory management)

KORSUNOV, VASILIY IVANOVICH

Analiz Finansovogo Sostoyaniya Promyshlennogo Predpriyatiya (Analizing the Financial Status of Industrial Enterprises) Moskva, Gosfinizdat, 1957.
93 p. Tables.

KORSUNOV, Vasiliy Ivanovich; TERESHCHENKO, N.I., red.; PROKOF'IEVA, L.N., tekhn.red.

[How to read a state farm balance] Kak chitat' balans sovkhoza. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1960. 76 p. (MIRA 12:6)

(State farms--Accounting)

AID P - 5208

Subject : USSR/Engineering

Card 1/1 Pub. 107-a - 7/13

Author : Korsunov, V. M., Eng. ("Red Boiler-Maker" Plant)

Title : Modernization of butt-welding machines of standard types used in the boiler industry.

Periodical : Svar. proizv., 7, 22-26, Jl 1956

Abstract : Some alterations and the adjustments of butt-welding machines used in boiler making industry are described by the author. The MSR-100, the MSM-150 and the MSG-300 machines were rebuilt at the Taganrog Boiler Plant (TKZ). A new MSP-100 automatic butt-welding machine is also described. Two photos, 6 drawings, 4 Russian refs. (1951-55).

Institutions: TKZ also known as the "Red Boiler-Maker" Plant, the Central Scientific Research Institute of Machine-Building Technology (TsNIITMASh).

Submitted : No date

SOV-135-58-3-7/19

AUTHOR: Korsunov, V.M., Engineer

TITLE: Contact Butt Welding of Pipes by Continuous Fusing (Kontaktnaya stykovaya svarka trub nepreryvnym oplavleniyem)

PERIODICAL: Svarochnoye proizvodstvo, 1958, Nr 3, pp 23-25 (USSR)

ABSTRACT: At the recommendation of TsNIITMASh, the "Krasnyy kotel'shchik" Plant developed and brought into industrial use a method of butt welding of pipes by continuous fusing. This method is described, and details of welding technology are given. Candidate of Technical Sciences E.S. Slepak, from TsNIITMASh, participated in developing the technology. Machines "MSM-150", "MSM-320" and MSG-300" were rebuilt for the job. Information includes descriptions and illustrations of the electric system of the "MSM-320" machine, of the cam design used for compression in the "MSG-300" machine, and of a device for removing the burr inside pipe joints. There are 3 graphs, 1 table, 5 diagrams, 1 photo and 3 Soviet references.

ASSOCIATION: Taganrogskiy zavod "Krasnyy kotel'shchik" (The Taganrog "Krasnyy kotel'shchik" Plant)

1. Pipes--Welding 2. Welding--Equipment

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KORSUNOV, V.M., inzh.

New methods for removing inside flashes from tubes in flash butt welding. Energomashinostroenie 4 no.5:34-37 My '58. (MIRA 11:9)
(Welding)

KORSUNOV, V. M.

SOV/135-59-4-16/16

25 (1)

AUTHORS: Aleksandrov, P. K., Scientific Secretary; Pol'dman, B. Z., Chief Engineer of the Technical Department

TITLE: The Rostov Zovarkhoz Welders Discuss Welding Industry Development (Svarshchiki Rostovskogo zovarkhoza obsuzhdayut vopros razvitiya svarochnogo proizvodstva)

PERIODICAL: Svarochnoye proizvodstvo, 1959, Nr 4, pp 44 - 45

ABSTRACT: Information is presented on welding conferences in the Rostov oblast' since the beginning of the Soviet organization of industry after the XII Communist party congress. There was a conference at the plant "Rostsel'mash" in September 1958 on general prospective development, with reports by Engineer Kochka "On Further Introduction of Welding Into Production Practice"; Engineer Mironov on "Mechanization of Assembly Welding Work and Modernization of the Plant's Equipment"; Engineer Zaimov on "High-Efficiency Electrodes and their Prospective Use at the Plant". A conference was organized at the plant "Prodmash" on the problem of using natural gas for cutting metals,

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with a demonstration of the process, which is extensively used at other plants of the Rostov Sovnarkhoz system. A conference at the Taganrog plant "Krasnyy kotel'shchik" discussed the problems of electric slag welding and contact welding. It is mentioned that nearly all existing welding processes are extensively used at all plants and construction projects in the Rostov oblast". Welded work makes up 60% of the production of the machine building plants. It is emphasized that maximum automation and mechanization of welding and the auxiliary processes is the task of the welders and the welders innovators. Scientific and practical workers and the welders innovators. More detailed information is given on the conference of December 1958, concerning technical development of welding and the introduction of new welding techniques at the oblast' plants during 1959-1965, with 90 practical welding specialists and scientific workers participating. At this conference, Engineer B. Z. Pol'dman (Technical Department of the Sovnarkhoz) spoke of the success achieved at the "Rostsel'mash" and the Taganrogskiy kombaynovyy zavod (Taganrog Combine Harvester Plant). There, the production

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of the self-propelled "SK-3" combine has been mastered, the necessary welding equipment has been completed, and the auxiliary operations mechanized. The plant "Krasnyy kotel'shchik" is using natural gas instead of acetylene for cutting, has mechanized 50% of the gas cutting work and is using oxygen jets in the butt welding of pipe, by the contact-flash method (to intensify the welding process and remove the metal ridge inside pipes). The plant "Krasnyy gidropress" has had good results in using welding in CO_2 in the production of hydraulic systems for combine harvester plants. The entire welding production is to be doubled during the seven-year plan as compared with 1958, cooling by welding is to be increased by 3.4 times, the production of electrodes by 2 times (the lack of good electrodes and wire is presently causing great difficulty) five by 1.5 times, and the scope of mechanization by 2.2 times. The use of contact welding will have to be increased [illegible] and welding [illegible] have to be used extensively.

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SOV/135-59-4-16/18

The Rostov Sovnarkhoz Welders Discuss Welding Industry Development

Engineer I. D. Davydenko, Candidate of Technical Sciences
and Stalin Prize Laureate (plant "Krasnyy kotel'shchik")/
read a report "On the Application of New Steel Grades in
the Production of Boilers, and on the Technology of
Welding These Steels". His plant is starting the use of
the electric slag welding process for steel "1Kh18N9T" and
is studying the welding of austenitic and other steels and
alloys. Engineer V. M. Korsunov (plant "Krasnyy kotel'
shchik") and Engineer V. [illegible] Kochka ("Rostsel'mash") told
of their plants experience in the reports "The Ways of
Mechanizing and Automating Welding". Engineer Barilov
("Rostsel'mash") and Engineer Zadoroshnyy (NIITM) present-
ed reports on "General Experience with Welding in Carbon
Dioxide at the Sovnarkhoz' Plants". Candidate of Techni-
cal Sciences A. I. Zelenov of the Rostovskiy institut
inzhenerov zheleznodorozhnogo transporta (Rostov
Institute of Railroad Engineers), and Engineer P. M. Sapov,
Chief of the "Rostsel'mash" Central Plant Laboratory, made
reports on "Extending the Volume of Coating Work, and
Introducing Modern Methods of Restoring Parts and Tools".

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SOV/135-59-4-16/18

The Rostov Sovnarkhoz Welders Discuss Welding Industry Development

Engineers V. I. Strote and I. I. Fomin delivered reports on
"Development and Use of Stamped-Welded Designs to Replace
the Cast and Forged, as a Way to Reduce the Weight of
Machines". Chief Engineer of "Rostovenergoremont", I. I.
Izrailevich, told the conference of the experience of the
"Rostovenergoremont" in the repair and modernization of
electric power plants, and of its work in improving
existing and the creation of new equipment for inspecting
welded joints in critical metal structures. Engineer V.
I. Reznikov of Novocherkasskiy elektrovozostroitel'nyy
zavod (Novocherkassk Electric Locomotive Plant) reported
on the automation of welding processes in the production
of electric locomotives. The conference followed the
example of the Moscow welders and appealed to all special-
ists of the Rostov oblast' to fulfill their practical
obligations in the mechanization of welding and the automa-
tion of welding processes in mass production.

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SOV/135-59-4-16/18

The Rostov Sovnarkhoz Welders Discuss Welding Industry Development

ASSOCIATION: Rontomashprom; Rostov Sovnarkhoz.

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SOV/137-59-4-8214

Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 4, p 125 (USSR)

AUTHOR: Korsunov, V.M.

TITLE: Modernization of Butt Welding Machines

PERIODICAL: Byul. tekhn.-ekon. inform. Sovnarkhoz Rostovsk. ekon. adm. r-na, 1958, Nr 2, pp 31 - 34

ABSTRACT: At the Taganrog "Krasnyy Kotel'shchik" Plant butt welding MSR-100, MSM-150 machines and the MSG-300 machine of the "Elektrik" plant were modernized. The machines were used for welding high-alloy and low-carbon steel pipes used in the manufacture of modern screen boilers. On the basis of the MSR-100 machine with lever drive for setting and clamping of parts, the MSP-100 machine was manufactured; it is designed with pneumatic drive for preheating, flashing-off and setting, and with pneumatic clamping of parts; this design makes it possible to carry out centering of the blanks prior to welding each butt. On the MSM-150 machine for fusion welding with preheating, a mechanism was designed to stop the movable plate in strictly definite positions with the use of an electromagnetic driven brake. On the MSG-300 machine for welding 60 - 83 mm

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boiler pipes, new movable and immovable plates were manufactured; on the plates clamping cylinders are fixed, fed through two pneumo-hydraulic cylinders; this ensures a clamping force of up to 15 t. The welding transformer is switched into the circuit through a special auto-transformer which makes it possible to regulate the secondary voltage of the welding transformer with 0.2 v accuracy. As a result of modernization, welding of screen boiler pipes could be carried out on the MSG-300 machine by the method of continuous flashing-off.

V.V.

KORSUNOV, V.M., inzh.

Resistance butt welding of pipe by continuous fusion. Svar. proizv. no.3:23-25 Mr '58. (MIRA 11:3)

1. Taganrogskiy zavod "Krasnyy kotel'shchik."
(Pipe, Steel--Welding) (Electric welding)

BERDYYEVA, S.I.; SHAFEROVA, K.A.; KORSUNOVA, L.I.

Diagnosis of colienteritis in very young children and its treatment with "OZCh" preparation. Zdrav. Turk. 5 no.5:24-27 S-O '61. (MIRA 14:12)

1. Iz Ashkhabadskogo instituta epidemiologii i gigiyeny (dir. - dotsent Ye.S.Ponova) i detskikh yasley No.7 (vrach L.I.Korsunova).
(INTESTINES--DISEASES) (TEA--THERAPEUTIC USE)

OVEZGEL'DYYEV, O.; KORSUNOVA, L.P.

Diurnal variation of drift velocities in the E_s layer. Izv.AN Turk.SSR.Ser.fiz.-tekh., khim.i geol.nauk no.2:116-118 '62. (MIRA 15:4)

1. Fiziko-tekhnicheskiy institut AN Turkmenskoy SSR.
(Sporadic E (Ionosphere))

YEROFEYEV, N.M.; KORSUNOVA, L.P.; OSTANINA, M.B.

Characteristics of the sporadic E layer of the ionosphere over Ashkhabad during the International Geophysical Year and International Geophysical Cooperation (1957-1959). Trudy Fiz.-tekh. inst. AN Turk. SSR 8:201-222 '62. (MIRA 15:11)

(Ashkhabad—Ionospheric research)

L 17981-63 EWT(1)/BDS/EEC-2/ES(v) AFFTC/ASD/AFMDC/ESD-3/APGC
Pe-4/Pi-4/Po-4/Pq-4 PT-2/G
ACCESSION NR: AT3002085 S/2728/62/008/000/0201/0222

AUTHORS: Yerofeyev, N.M.; Korsunova, L.P.; Ostanina, M.B. 82

TITLE: Characteristics of the sporadic E layer in the ionosphere above Ashkhabad during the IGY and the IGC (1957-1959)

SOURCE: AN Turkm SSR. Fiziko-tekhnicheskiy institut. Trudy, v.8, 1962, 201-222

TOPIC TAGS: ionosphere, E layer, sporadic E layer, Ashkhabad, IGY, IGC, sporadic E layer variation, seasonal variation, diurnal variation

ABSTRACT: The report describes observations of the state of the ionosphere performed at the Ionospheric Station "Ashkhabad" from 1957 to 1959. The 1957 observations were performed with a manually controlled equipment which covered a frequency range from 1.5 to 15.0 mcps and in which the radiated power of the transmitter was approximately 5-2 kw along the frequency range, while the sensitivity of the receiver was 2-5 microvolt. The pulse duration was up to 100 microsec, its repeat rate 50 cps. The automatic panoramic station employed since 10 February 1958 covered a frequency range of 1.0-17.0 mcps, which was scanned in 22 sec and rescanned every 38 seconds. The radiated transmitter power of this equipment was 10-3 kw along the frequency range, the sensitivity of the receiver

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of the order of 5 microvolt, and the pulse duration appx. 70-90 microsec, with a 50-cps repeat rate. The sporadic E layer, E_s, was predominantly noted at 100 km throughout 1957-1959; the diurnal and seasonal variations of the basic characteristics of the E_s layer remains essentially constant from year to year, exhibiting differences in small detail only. This conclusion remains valid even though the station equipment and its antenna system were altered radically. The seasonal variation of the percent of appearance of the E_s layer above Ashkhabad has one heavy summer maximum, which appears in June-July, whereas a minimum is always observed in March. During the winter months of January and February a very weak trace, which corresponds to the winter maximum observed at higher-latitude stations, was noted. The diurnal variation of the percent of appearance of the E_s layer above Ashkhabad had a basic daytime maximum observed throughout the entire year and a nocturnal midnight maximum which appears only during the summer months. In the morning, prior to sunrise, a deep minimum is observed; a less sharply defined minimum is noted in the evening. With an increase in the percent of appearance of the E_s layer the magnitude of its limiting frequency, the frequency of screening, and the number of fadings increase. The variation of the seasonal distribution of the content of high and low limiting frequencies of the E_s layer is similar to the variation of all other stations having a high-frequency maximum in the summer months and a minimum in the winter months, whereas

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the variation for the lower limiting frequencies is the opposite. The seasonal variation of all the characteristics of the E_s layer, for daytime and nighttime, is fully similar to that observed at other stations. Orig. art. has 8 tables and 12 figures.

ASSOCIATION: None

SUBMITTED: 00	DATE ACQ: 29Apr63	ENCL: 00	
SUB CODE: AS, CO	NO REF SOV: 001	OTHER: 001	

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...and 110 km in the lower region of the E layer was investigated. Values of n_e were taken during 36 rocket-borne experiments conducted in the period 1947—1963 at middle latitudes. The degree of disturbance of the Earth's magnetic field was estimated from 3-hour values of K-indices. It was found that the electron concentration ... increased as ...

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UDC: 550.388.2:550.385

ACC NR: AP7002202

magnetic activity increased (i.e., for K = 3—5 the electron concentration increased not less than 1.5 times at 110 km, and not less than 2 times at 100 km. It is postulated that for K73 corpuscular streams have an appreciable effect on electron concentration in the lower regions of the ionospheric E layer at midlatitudes. [WA-03]

SUB CODE: 04 / SUBM DATE: 22Mar66/ ORIG REF: 007/
ATD PRESS: 5113

Card 2/2

ACCESSION NR: AP4031648 S/0203/64/004/002/0411/0412

AUTHOR: Ovezgel'dy*yev, O.; Korsunova, L. P.

TITLE: The sporadic E-layer of the ionosphere and daily variations of the earth's magnetic field

SOURCE: Geomagnetizm i aeronomiya, v. 4, no. 2, 1964, 411-412

TOPIC TAGS: geomagnetic field, ionosphere, increased ionization, E layer, reflection frequency

ABSTRACT: Experiments conducted in Ashkhabad from May to August 1962 have led to a preliminary conclusion that the sporadic occurrence of an intensive E_s-layer does not substantially affect the diurnal variations of the earth's magnetic field. However, an indirect relationship may exist between the occurrence of an intensive E_s-layer and the variations of the horizontal component of the geomagnetic field. Orig. art. has: 2 figures.

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ACCESSION NR: AP4031648

ASSOCIATION: Otdel geofiziki i seysmologii AN TurkmSSR (Geophysics and Seismology Division, AN TurkmSSR)

SUBMITTED: 12Sep63 DATE ACQ: 30Apr64 ENCL: 00

SUB CODE: ES NO REF SOV: 001 OTHER: 001

Card 2/2

ACCESSION NR: AP4037556 S/0202/64/000/002/0021/0026

AUTHOR: Ovezgel'dy*yev, O.; Korsunova, L. P.

TITLE: Investigation of drift in the E region of the ionosphere

SOURCE: AN TurkmSSR. Izv. Seriya fiziko-tekhnicheskikh, khimicheskikh i geologicheskikh nauk, no. 2, 1964, 21-26

TOPIC TAGS: ionosphere, dynamo theory, E region, E layer

ABSTRACT: The purpose of this paper was to investigate the daily variation of elements in the Earth's magnetic field, caused by electrical currents in the E-region of the ionosphere. Observations were made at high, middle, and low latitudes. The authors subjected primary data on the behavior of the permanent and semidiurnal constituents of the drift-velocity vector at various latitudes to harmonic analysis, which was conducted for daylight hours. They found that the semidiurnal constituents are considerably greater above the high and mid-latitude stations than above the low latitude stations. The presented graphs show the complexity of the mechanism of real motion in the E-region of the ionosphere and the incompleteness of the description of the dynamo theory. Therefore, it is necessary to develop this theory further, along with the increase of the qualitative experimental material. The

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Korsunovskiy, G. A.

AUTHOR: Korsunovskiy, G. A. (Leningrad) 76-10-27/34

TITLE: Detection of Free Hydroxyl with the Aid of the Absorption Spectra of the Secondary Products of Photochemical Reactions in Aqueous Solutions (Obnaruzheniye svobodnogo gidroksila po spektram pogloshcheniya vtorichnykh produktov fotokhimicheskikh reaktsiy v vodnykh rastvorakh).

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1957, Vol 31, Nr 10, pp. 2351-2356 (USSR)

ABSTRACT: The spectroscopical method was used here for the determination of the benzene-hydroxylation-products in the photochemical reaction in an iron (III)-chloride solution aqueous and a zinc-water suspension. The possibility of finding the hydroxyl radical which is produced in the photochemical reaction in the iron (III) chloride aqueous solution and in zinc water suspension according to the absorption spectra of the secondary products of the reaction is shown. The "quantum exit" of the phenol produced in these reactions amounted to 0,05. It was detected that in the course of the subsequent

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KORSUNOVSKIY, G.A.

AUTHOR: KORSUNOVKIY, G.A. PA - 2770

TITLE: Photooxidation of Water by Dyes on the Surface of Semiconductors. (Fotookisleniye vody krasitelyami na poverkhnosti poluprovodnikov. Russian).

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 4, pp 853 - 855 (U.S.S.R.)

Received: 6 / 1957 Reviewed: 7 / 1957

ABSTRACT: In a work by Gliksman and Podlinyayeva, which was recently published, it was mentioned as probable that water acts as a direct participant in reaction, i.e. as an oxidation substratum of the photoreduction of thiacine dyes on zinc oxide. Proceeding from nearly the same suppositions, the author investigated the photoreduction reaction of methylene blue on zinc oxide, titanium dioxide, and on cadmium sulphide by employing the method benzol hydroxylization in order to determine the hydroxyl radicals. He mentions the at present assumed mechanism of the photooxidation of water in the presence of zinc oxide and oxygen. The discharge of a hydroxyl ion on the positively charged center of the semiconductor microcrystal (ZnO+), which was created by the capture of an electron by the oxygen molecule, leads to the formation of a hydroxyl radical. Having a strong oxidizing effect, it reacts with HO_2 radicals and with hydrogen peroxide and leads to a reduced yield of peroxide, or of organic reducers exist, to the oxi-